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10/684,268	10/10/2003	Felix A. Montero-Julian	BECK1120-1(2147-183CIP)	1728

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EXAMINER	
FOSTER, CHRISTINE E	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/684,268	MONTERO-JULIAN ET AL.	
	Examiner	Art Unit	
	CHRISTINE FOSTER	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2007 and 16 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-67* is/are pending in the application.

4a) Of the above claim(s) *20-22 and 27-67* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19 and 23-26* is/are rejected.

7)☒ Claim(s) *2,9,11,13,14,17,18 and 26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/10/03 and 8/8/07* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/30/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Amendment Entry

1. Applicant's amendments filed 8/8/07 and the corrected reply of 11/16/07 are acknowledged and have been entered. Claims 1, 5, 8-11, 14, 18, 23-24, and 26 were amended. Claims 1-67 are pending in the application, with claims 20-22 and 27-67 currently withdrawn.

Terminal Disclaimer

2. The terminal disclaimer filed on 8/8/07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration dates of U.S. Application Nos. 10/782,664 and 10/269,473 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Objections/Rejections Withdrawn

3. The objections to the drawings have been withdrawn in light of the replacement drawings filed 8/8/07.

4. The objections to the specification not reiterated below have been withdrawn in response to Applicant's amendments thereto.

5. The objections to claims 4, 9-10, 23-24, and 26 as set forth in the previous Office action have been withdrawn in response to Applicant's amendments.

6. The rejections under § 112, 2nd paragraph not reiterated below have been withdrawn.

7. The provisional obviousness-type double patenting rejections have been withdrawn in response to Applicant's filing of the above-mentioned terminal disclaimer.

8. The rejections of claims 1-19 and 23-26 under § 112, 1st paragraph have been withdrawn in response to Applicant's amendments to claim 1 and upon further consideration by the Examiner.

Specification

9. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 9 recites that the first binding ligand may be "monomeric avidin". However, the specification does not specifically refer to "monomeric avidin" but only to "avidin" *per se*. It is suggested that the specification be amended to provide proper antecedent basis for the claimed subject matter. Applicant is reminded that new matter should not be introduced into the specification.

Claim Objections

10. Claims 2, 9, 11, 13-14, 17-18, and 26 are objected to because of the following informalities:

11. The trademark NEUTRAVIDIN™ should be capitalized in claim 9.

12. Claim 9 does not conclude with a period.

13. Claims 2, 11, 13-14, 17-18, and 26 are objected to because claims 2, 13-14, 17-18, and 26 recite the terms "reconstituting" or "reconstituted", while claim 11 recites "renaturing conditions". This is confusing because specification appears to use the terms "reconstituting" and

"renaturing" synonymously. Applicant is requested to employ consistent terminology (i.e., either reconstituting/ reconstituted or renaturing/ renatured) throughout the claims.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 5 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

16. The term "low" in claim 5 is a relative term which renders the claim indefinite. The term "low pH" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not apparent based on the specification what pH values or ranges would be considered "low pH" in this context.

17. Claim 8 recites that the C-terminal end of the monomer is "**contacted with**" a second binding ligand, which indefinite because it apparently invokes a process step in the context of the instant product claims. It is unclear whether Applicant intends that the monomer is attached to a second binding ligand, which in turn is attached to the first binding ligand coated onto the surface (e.g., as in claim 10); or alternatively whether the reference to contact refers to the intended use of the claimed system, i.e. that the monomer may be contacted with or added to a second binding ligand that specifically binds with the first ligand.

For the purposes of examination, it was assumed that the second binding ligand is attached to the monomer at its C-terminal end as in claim 10.

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

19. Claims 1-5, 8-12, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Altman et al. (US 5,635,363).

Altman et al. teach a system comprising a solid surface (e.g., beads or microtiter plates) attached to one or more MHC monomer or modified MHC monomer ("multimeric binding complex" of MHC protein subunits and peptide antigen). See the entire document, especially the abstract; column 2, lines 51-54; column 3, line 19 to column 5, line 7 to column 6, lines 51-65; and column 8, lines 4-58). The examiner notes that the multimeric binding complex of Altman et al., comprising MHC class I chain (monomer) in complex with beta-2 microglobulin and peptide (see especially at column 3, lines 19-32) reads on the claimed system because claim 1 employs open transitional language ("comprising"). Altman et al. teach various modified MHC monomers, including a single-chain heterodimer in which the alpha and beta subunits are fused together as a single polypeptide monomer (column 4, lines 21-33).

Regarding the limitation that the monomer incorporates from solution an MHC-binding peptide, the system of Altman et al. would also be capable of performing this intended use since

the reference teaches all recited structural limitations of the claim. Given that the binding of MHC to peptide is a noncovalent, reversible interaction, absent evidence to the contrary there is a strong basis to believe that the MHC monomers of Altman et al. would also be capable of unfolding, releasing peptide, and renaturing to incorporate peptide again.

With respect to claims 4, Altman et al. teach that the multimeric binding complex may be attached to microtiter plates (column 8, lines 27-49).

With respect to claim 5, Applicant has argued that the recited property results from binding of the MHC to the solid surface (Reply, page 17). Therefore, since the prior art system also involves MHC bound to a solid surface, the prior art would also necessarily possess this property.

With respect to claims 8-10, Altman et al. teach systems comprising a solid surface (agarose beads) coated with a first binding ligand (streptavidin), which are then bound to a biotinylated MHC class II heterodimer (see column 13, line 40 to column 14, line 31). Biotin is attached to the MHC monomer at the MHC C-terminus to avoid potential hindrance of at the antigenic peptide site (see column 13, lines 4-19 and column 6, lines 18-33).

With respect to claims 11-12 and 14, it is noted that the limitations refer to the intended use of the claimed product. Since Altman et al. teach the same reagents (e.g. HLA class I) as disclosed in the instant specification, they would be capable of performing the recited intended uses of denaturing and reconstituting as claimed.

With respect to claims 15-16, the MHC monomer may be HLA class I and the system may further comprise beta-2 microglobulin (see especially column 3, lines 19-46).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

21. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

22. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altman et al. in view of Becker et al. (US 6,485,913).

Altman et al. is as discussed above, which teaches a system substantially as claimed but which fails to specifically teach that the monomer is attached reversibly or by a cleavable linkage.

Becker et al. teach immobilization of reagents to solid supports, in which proteins (for example) can be immobilized reversibly, for example by using a selectively cleavable linker that allows for cleavage under defined conditions (column 17, line 1 to column 19, line 17). Becker et

al. also teach reversible immobilization of proteins via free thiol groups, which has the advantage in that thiols can be blocked to temporarily prevent reaction (see column 19, lines 1-17).

Therefore, it would have obvious to one of ordinary skill in the art to employ reversible immobilization as taught by Becker et al. in order to allow for the immobilized MHC monomer to be released from the solid support under defined conditions. One would have a reasonable expectation of success because Altman et al. teach that the MHC monomer can be attached to the surface by any convenient means, and that the particular manner of binding is not crucial (column 8, lines 28-35).

23. Claims 13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altman et al. in view of Jager et al. (*The Journal of Immunology* (March 2002), p. 2766-2772).

Altman et al. is as discussed above, which teaches a system substantially as claimed. However, the reference fails to specifically teach that the system includes a monoclonal antibody that binds to the reconstituted, but not the denatured form of the MHC monomer.

However, Jager et al. teach methods for detecting interactions of T cells with MHC molecules, in which the monoclonal antibody w6/32 is employed in order to ensure that an equal number of MHC/peptide complexes are used in the assay (see especially the abstract and p. 2767, the left column). The w6/32 antibody recognizes reconstituted, but not denatured class I antibody since it recognizes a monomorphic determinant in the correctly folded ternary complex. This antibody therefore recognizes a "conformational epitope" as in claim 13 since the epitope is found only in the correctly folded conformation.

Therefore, it would have been obvious to one of ordinary skill in the art to include the w6/32 monoclonal antibody taught by Jager et al. in the system of Altman et al. for the purpose of detecting MHC/peptide complexes to be used in a T cell detection assay, so that an equal number can be used, which is particularly relevant because the system of Altman et al. is intended for the purpose of detecting T cells (see column 8, lines 17-26).

With respect to claim 18, the system of Altman et al. includes a peptide of 8-10 amino acids in the case of class I MHC proteins (column 3, lines 20-32; column 2, lines 29-40; column 4, line 63 to column 5, line 47).

24. Claims 13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altman et al. in view of Hildebrand et al. (US 2003/0166057 A1).

Altman et al. is as discussed above, which teaches a system substantially as claimed. However, the reference fails to specifically teach that the system includes a monoclonal antibody that binds to the reconstituted, but not the denatured form of the MHC monomer (which may be HLA class I).

Hildebrand et al. also teach the monoclonal antibody W6/32, which binds to a conformational epitope in class I MHC molecules that includes both the heavy chain and beta2m ([0276], this antibody is also discussed in the Jager et al. reference above). The reference teaches that the antibody can be used in order to test for conformationally intact ternary complexes (trimers) [0317]-[0321]. This antibody therefore recognizes a "conformational epitope" as in claim 13 since it specifically binds to conformationlly intact complexes.

Therefore, it would have been obvious to include the monoclonal antibody W6/32 in the system of Altman et al. as a control reagent for the purpose of ascertaining whether the multimeric ternary complexes are conformationally intact.

With respect to claim 18, as noted above, the system of Altman et al. includes a peptide of 8-10 amino acids in the case of class I MHC proteins (column 3, lines 20-32; column 2, lines 29-40; column 4, line 63 to column 5, line 47).

25. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Altman et al. in view of Jager et al., or, alternatively, Altman et al. in view of Hildebrand et al., and further in view of Marin et al. (*Hybridoma* Vol. 14 (1995), 443-451, Applicant's IDS of 8/30/04).

Altman et al., Jager et al., and Hildebrand et al. are as discussed above, which teach a system including a monoclonal antibody that binds to the reconstituted, but not the denatured form of class I MHC. However, the references fail to specifically teach the antibody produced by hybridoma B9.12.1.

The antibody produced by hybridoma B9.12.1 was well known in the art at the time of the invention for the purpose of detecting class I MHC molecules. See Marin, in particular the abstract and p. 444, left column, the first full paragraph. The reference teaches that the B9.12.1 monoclonal antibody binds to a monomorphic determinant of MHC class I molecules that has already been used with success in cell-targeting experiments, and that also is commonly used for phenotyping human cells, and therefore allows for easy monitoring of its binding capability.

Therefore, it would have been obvious to one of ordinary skill in the art to employ the B9.12.1 antibody of Marin in place of the W6/32 antibody (taught in both Jager and Hildebrand)

in the system of Altman and Jager, or alternatively, Altman and Hildebrand because Marin teaches that the B9.12.1 antibody allows for easy monitoring of binding capability. One would have a reasonable expectation of success because Marin teaches that the B9.12.1 antibody also recognizes human MHC class I molecules.

Furthermore, the Courts have ruled that art-recognized equivalence between embodiments provides a strong case of obviousness in substituting one material for another.

In regards to the instant application, the specification teaches that any monoclonal antibody that specifically binds to a conformational epitope present only in a ternary complex of an MHC monomer and does not set forth a reason for choosing one monoclonal antibody over another. See [0087].

Because the B9.12.1 antibody taught by Marin et al. is recognized as an equivalent applied for the same purpose, and Applicants have not provided evidence indicating why these two antibodies may not be considered art-recognized equivalents, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the monomorphic, anti-MHC class I monoclonal antibody B9.12.1, as taught by Marin et al., for the monomorphic, anti-MHC class I monoclonal antibody W6/32 of Hildebrand in the system of Altman et al. and Hildebrand because Hildebrand teaches that monomorphic monoclonal antibodies are particularly useful for identifying and characterizing MHC molecules, and in light of the teaching of Marin that B9.12.1 is also a monomorphic monoclonal antibody useful for this same purpose. Similarly, it would have been obvious to employ the B9.12.1 antibody in place of the W6/32 antibody of Jager et al. in the system of Altman et al. and Jager et al. because the both

antibodies were known in the art to be useful for the same purpose of detecting class I MHC molecules.

26. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altman et al. in view of Zuk et al. (US 4,208,479).

Altman et al. is as discussed above, which teaches a system substantially as claimed but which fails to specifically teach a "kit" comprising the system. The reference also fails to specifically teach that the monomers are in dried form.

With respect to claim 23, Zuk et al. that reagents for performing assays may be provided in dry form (column 2, lines 49-54; column 22, lines 36-39). It is asserted that the advantages of dried forms of reagents, specifically their stability or shelf-life and their convenience over wet reagent forms, was well known in the art at the time of the invention.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the system of Altman et al. in dried form as taught by Zuk et al. for convenience and/or improved stability.

With respect to claim 24, Zuk et al. teach that in performing assays it is a matter of substantial convenience to provide the needed reagents combined in a kit (column 22, lines 20-68). The reference teaches that kits can also provide significant enhancement in accuracy.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the system of Altman et al. in kit form for convenience as taught by Zuk et al. One would have a reasonable expectation of success because Altman et al. teach that the system is intended to be employed in assays, including immunoassays (see e.g. at column 7, line 56 to column 8, line 49).

27. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altman et al. in view of Zuk et al. as applied to claim 24 above, and further in view of Schutzer et al. (US 5,187,065).

Altman et al. and Zuk et al. are as discussed above, which fail to specifically teach an "instruction" for a kit. However, it was well known in the art at the time of the invention to provide instructions as part of a kit for the purpose of instructing the kit user how to carry out assays with the kit. For example, see Schutzer et al. at column 3, lines 40-57.

Therefore, it would have been obvious to one of ordinary skill in the art to include an instruction in the kit of Altman et al. and Zuk et al. for the purpose of instructing the user how to use the kit. It is further noted that where the only difference between a prior art product and a claimed product is printed matter that is not functionally related to the product, the content of the printed matter will not distinguish the claimed product from the prior art. In re Ngai, 367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004). See MPEP 2112.01.

With respect to claim 26, Altman et al. teach that the system may include a bound peptide antigen (see for example claim 3, lines 7-32; column 4, line 63 to column 5, line 47). This meets the claimed limitation of being a "control peptide" in the absence of a recitation of any limitations that would distinguish the peptide from that of Altman et al. As such, when providing the system of Altman et al. in kit form (as taught by Zuk et al.) it would have been clearly obvious to include the peptide of Altman since this is one of the components of the system.

Response to Arguments

28. Applicant's arguments filed 11/16/07 have been fully considered.

29. Applicant's arguments with respect to claim 8 under § 112, 2nd paragraph have been considered (Reply, page 17) but are moot in view of the new ground(s) of rejection.

30. With respect to the rejections of claims 1-5, 8-12, and 14-16 under § 102(b) as being anticipated by Altman et al., Applicant argues that the claims expressly recite that the bound monomer incorporates from solution a MHC-binding peptide, while the system of Altman et al. includes an MHC molecule that is already occupied by peptide (Reply, page 23).

This is not found persuasive the instant claims recite a product that is characterized using open transitional language ("comprising"). Therefore, the claimed system may include additional unrecited elements, such as a peptide in this case.

Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant argues that incorporation of peptide by the system of Altman et al. is an "impossibility" but does not advance evidence or provide scientific reasoning in support of this. Arguments of counsel cannot take the place of factually supported objective evidence. See, e.g., In re Huang, 100 F.3d 135, 139-40, 40 USPQ2d 1685, 1689 (Fed. Cir. 1996); In re De Blauwe, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984).

In the instant case, binding of MHC to peptide is a noncovalent, reversible interaction. The claimed MHC monomers are structurally indistinguishable from those disclosed in the prior art, as no particular sequence is recited in the claims, for example.

As disclosed instantly, MHC molecules are capable of unfolding, releasing peptide in the process, and then refolding again to incorporate peptide again. See instant claim 11, for example. The MHC molecules used in the system of Altman et al. are structurally indistinguishable from those claimed instantly. Thus, there is every reason to believe that they would also be capable of unfolding, releasing peptide, and renaturing to incorporate peptide again; the evidence of record indicates that this is an inherent property of MHC molecules immobilized on a solid support. Absent evidence to the contrary, it is maintained that the system of Altman et al. would also be capable of performing this intended use. See MPEP 2112.

31. With respect to the rejections of claims 6-7 under § 103(a) as being unpatentable over Altman et al. in view of Becker et al., Applicant does not separately argue the limitation of the dependent claim but argues that Altman et al. teaches away from the claimed invention since it teaches that the MHC binding peptide is bound to the monomer on the solid surface, and therefore does not teach the purpose of incorporating the peptide from solution (Reply, page 24).

This is not found persuasive because as discussed above, the reference to the incorporation of peptide from solution relates to the intended use of the claimed system. The reference need not teach this same intended use in order to read on the instant product claims. In addition, since Applicant has employed open transitional language to describe the claimed system, there is nothing that would rule out peptide being bound to the solid support as in

Altman et al. Therefore, arguments that Altman teaches away since the peptide is already bound to the solid support are not persuasive since the claims fail to rule out such a scenario.

Applicant argues that it would not be possible for the Altman et al. system to incorporate peptide since it already includes peptide (Reply, page 24). This is not found persuasive because the instant claims recite only that the surface-attached monomer incorporate peptide from solution. There is no requirement that this incorporation must be performed directly or immediately with no other intervening steps as apparently argued. Therefore, whether peptide could be immediately added and bound to the Altman et al. system is not seen as relevant, since the instant claims do not clearly invoke such an intended use.

32. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (Reply, page 24), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

33. With respect to the rejections of claims 13 and 17-18 under § 103(a) as being unpatentable over Altman et al. in view of Jager et al., Applicant argues that Jager et al. does not teach that the solid surface bound monomer incorporates from solution a MHC binding peptide (Reply, page 25). Similarly, with respect to the rejections of claim 19 under § 103(a) as being unpatentable over Altman et al. in view of Martin et al. and either one of Jager et al. or Hildebrand et al., Applicant argues that Martin et al. does not include this teaching. Similarly,

with respect to the rejections of claims 23-24 under § 103(a) as being unpatentable over Altman et al. in view of Zuk et al., Applicant argues that Zuk et al. does not include this teaching. Similarly, with respect to the rejections of claims 25-26 under § 103(a) as being unpatentable over Altman et al. in view of Zuk et al. and Schutzer et al., Applicant argues that Schutzer et al. does not include this teaching.

This is not found persuasive because it amounts to a piecemeal analysis of the references. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, the Altman et al. reference has been relied upon as meeting this limitation regarding the intended use of the claimed system, as discussed above.

Conclusion

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Foster whose telephone number is (571) 272-8786. The examiner can normally be reached on M-F 8:30-5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached at (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christine Foster/
Examiner, Art Unit 1641

/Long V Le/
Supervisory Patent Examiner, Art Unit 1641